

IN THE CLAIMS:

Please add new claims 19-26 as follows:

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19. (New) A transmitting apparatus in a mobile communication base system, comprising:
a signal generator for generating a transmission signal;
two or more antennas;
two or more RF transmitters, each of the RF transmitters connected to a respective one of the antennas, for converting an input signal to an RF signal and outputting the RF signal through the respective antenna; and

a time switching transmission controller for alternately switching the transmission signal to one of the RF transmitters for a fixed, non-overlapping predetermined time unit to provide time switching transmission diversity (TSTD).

20. (New) The transmitting apparatus of claim 19, wherein the time switching transmission controller comprises:

a controller having pre-stored switching patterns, for generating a switch controlling signal based on one of the pre-stored switching patterns, said controlling signal being generated at said fixed non-overlapping predetermined time unit; and

a switch connected between the signal generator and an input terminal of each of said two or more RF transmitters, for switching the transmission signal to one of the RF transmitters based on the switch controlling signal.

21. (New) The transmitting apparatus of claim 20, wherein the controller comprises:

a reference cycle storage for storing a reference switching cycle value;

a counter for counting clock pulses of a base station and outputting a counted value based on the reference switch cycle value;

a memory for storing a plurality of switching patterns and outputting one of said plurality of switching patterns based on the counted value; and

a control signal generator for generating the switch controlling signal according to the switching pattern selected from the memory.

22. (New) The transmitting device of claim 21, wherein the memory stores at least one of a sequential switching pattern, a random switching pattern, a switching pattern with a uniform switching cycle, and a switching pattern with a variable switching cycle and the control signal generator generates the switch controlling signal with length equal to an integer multiple of an orthogonal code length.

23. (New) A transmitting method in a mobile communication base station system, having two or more antennas and two or more RF transmitters, each of the RF transmitters connected to a respective one of the antennas for converting an input signal to an RF signal and outputting the RF signal through the respective antenna, comprising the steps of:

generating a transmission signal; and

alternately switching the transmission signal to one of the RF transmitters for a predetermined time unit to provide time switching transmission diversity (TSTD) and transmitting the transmission signal.

24. (New) The transmitting method of claim 23, wherein the alternately switching step comprises the steps of:

generating a switch controlling signal based on a switching pattern at the predetermined time unit; and

switching the transmission signal to the RF transmitter to be connected corresponding antenna based on the switch controlling signal.

25. (New) The transmitting method of claim 24, wherein the switch controlling signal generation step comprises the steps of:

generating a reference switching cycle signal;

counting clock pulses of a base station and outputting the counted value at the time point when the reference switching cycle value is generated;

outputting the switching pattern based on the counted value; and
generating the switch controlling signal according to the switching pattern.

26. (New) The transmitting method of claim 25, wherein the switching pattern is at least one selected from the group of a sequential switching pattern, a random switching pattern, a switching pattern with a uniform switching cycle, and a switching pattern with a variable switching cycle, and the switch controlling signal is an integer multiple of an orthogonal code length.

REMARKS

This responds to the Office Action of June 19, 2002. Claims 1-26 are pending in the Application, with Claims 19-26 being newly added above. The acknowledgment in the Office Action that Claims 3, 4, 7, 8, 15 and 16 include allowable subject matter is gratefully accepted.

Turning to the Office Action, Figures 3 and 4 were objected to because the legend "Prior Art" was not included. Submitted herewith is a proposed amendment to Figs. 3 and 4. Acceptance of the amendment and withdrawal of the objection is respectfully requested.

Turning to the Office Action, in paragraph 4 the Examiner rejects Claims 1, 2, 5, 6, 13 and 14 under 35 U.S.C. 103(a) as unpatentable over U.S. Patent No. 6,006,075 to Smith et al. in view of U.S. Patent No. 6,185,199 to Zehavi. It is not clear whether the Office Action maintains that Smith discloses a "time switching transmission controller", as recited in independent Claim 1. For example, page 2, lines 4-7, of the Office Action indicates that Smith does not disclose a time switching transmission controller, whereas page 2, lines 21-22, indicates that it does.

In any case, Smith does not teach a "time switching transmission controller ... for mutually exclusively switching ... between the plurality of transmitters in non-overlapping time intervals, thereby providing transmission time diversity". Smith appears to be limited to providing frequency and spatial diversity, not time switching transmission diversity. (See, e.g., Smith, col. 7, lines 39-43; col. 11, lines 49-54; Abstract)